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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,913	12/30/2004	Katsumi Shinjo		3003

7590 01/04/2006

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EXAMINER

REESE, DAVID C

ART UNIT PAPER NUMBER

3677

DATE MAILED: 01/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/519,913

Applicant(s)

SHINJO, KATSUMI

Examiner

David C. Reese

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

- [1] Claim 7 is pending.

Claim Objections

- [2] Claim 7 recites the limitation "the carbon content" in the instant claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

- [3] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- [4] Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bjorklund et al., US-4,233,880, in view of case law.

Although the invention is not identically disclosed or described as set forth 35 U.S.C. 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a designer having ordinary skill in the art to which said subject matter pertains, the invention is not patentable.

As for Claim 7, Bjorklund et al. shows of a drill screw comprising:

a drill part (16);

a tapping screw part (above 16) connected to the drill part (16);

a fastening screw part (14) connected to the tapping screw part (above 16); and

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a screw head part (12) for conducting and providing a turning force, wherein the drill part (16) and the tapping screw part (above 16) are made of a high-carbon chrome series stainless steel (col. 1, lines 65-70);

the fastening screw part including the screw head part is made of a nickel series stainless steel (abstract);

the nickel series stainless steel of the fastening screw part (14) including the screw head part (14) is SUS-305J1 or SUS-316 (col. 1 lines 8-11) and consists of a stainless steel satisfying high corrosion-resistivity (col. 1, lines 57-59) and high tensile force guaranteeing ISO A-2-70 and A-4-70 after thread rolling.

The difference between the claim and Bjorklund et al. is that Bjorklund et al. does not explicitly state the exact specifications of the materials (SUS-420J2 or JIS-G4051, and SUS-305J1 or SUS-316; guaranteeing ISO A-2-70 and A-4-70) of which the above features (the drill part and the tapping screw part; fastening screw part including the screw head part, respectively) are composed. First and foremost, it is pertinent to point out that it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering design choice. *In re Leshin*, 125 USPQ 416. It is also common knowledge to choose a material that has sufficient strength, durability, flexibility, hardness, etc. for the application and intended use of that material. Further, to show that said materials are known in the art and used specifically for their application and intended use of that material; additional documents have been provided to help show the prevalence of such materials in the art.

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In addition to the 300 series stainless steel taught by Bjorklund et al, with respect to the fastening screw part including the screw head part, the claim states that such a feature can be composed of either SUS-305J1 or SUS-316. Both <http://www.azom.com/details.asp?ArticleID=863> and <http://www.assda.asn.au/aasp/index.asp?pgid=17970> teach of properties of SUS-316; properties of such that include corrosion resistance, heat resistance, and its excellent fabricability characteristics. It is also taught that typical applications for 316 include structural members, and hot water systems, etc. Thus, it would have been obvious for one skilled in art to use such a material for the fastening screw part including the screw head part for its corrosion resistance and heat resistance properties and applications thereof.

Secondly, with respect to the drill part and the tapping screw part, the claim states that such a feature can be composed of either SUS-420J2 or JIS-G4051. <http://www.shineintl.co.kr/product/stainlesssteel/sheetcoil.htm> as well as <http://www.e-pipe.co.kr/jpn/EJIS/pipe-text/struct/4051.html> teaches of SUS-420J2 stating how quenching such steel yields high hardness products. The hardness of which is used for machine structural use, precision assembly parts, and helping to improve the drilling characteristics of the drill part and tapping screw part.

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Conclusion

[5] The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited further to show the state of the art with respect to this particular type of fastener; as well as their extreme relevance to the current application as many read extensively onto the claimed invention: please see submitted notice of reference cited.

[6] Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Reese whose telephone number is (571) 272-7082. The examiner can normally be reached on 7:30 am-6:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached at (571) 272-7075. The fax number for the organization where this application or proceeding is assigned is the following: (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sincerely,
David Reese
Assistant Examiner
Art Unit 3677

DCR


ROBERT J. SANDY
PRIMARY EXAMINER